To: Harris, Adam[Adam.Harris@srz.com]; Kweskin, Lucy[Lucy.Kweskin@srz.com]

Cc: donald.frankel@usdoj.gov[donald.frankel@usdoj.gov]; Zizila,

Frances[Zizila.Frances@epa.gov]
From: Gordon, David L. (ENRD)
Sent: Fri 2/3/2017 10:12:22 PM

Subject: FW: Maxus bankruptcy -- dredging as a potential remedy for contaminated sediments in the

mid 1990s

Adam,

I'm forwarding an email from EPA that responds to your question regarding dredging. Please see below. We look forward to taking again soon.

David

David L. Gordon

Senior Counsel

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Based on the information in EPA files noted below, dredging was selected as a component of removal/remedial actions in the 1990s at a number of sites throughout the U.S.

Examples of sites where dredging occurred in the 1990's:

- Non-time-critical removal action conducted in 1995 in the <u>Grasse River in Massena, NY:</u> https://www.epa.gov/enforcement/case-summary-alcoa-inc-conduct-243-million-cleanup-grasse-river-superfund-site-new-york
- At the <u>Black River, in Lorain, OH</u>, sediment was contaminated with polycyclic aromatic hydrocarbons (PAHs) as a result of effluent from a steel-plant coking facility. In 1983, the coking facility closed. Dredging occurred from late 1989 to early 1990 below the Kobe Steel outfalls at river miles 2.83-3.55 https://www.epa.gov/black-river-aoc/restoring-black-river-aoc-timeline
- Marathon Battery -- About 80,000 cy of sediment was dredged from the contaminated areas of East Foundry Cove, East Foundry Cove Pond, and the Cold Spring Pier area from 1993 to 1995. https://semspub.epa.gov/work/02/200328.pdf
- Manistique Harbor, Michigan

EPA conducted dredging between 1995 and 2000 to remove PCB contaminated sediment at Manistique Harbor, MI. https://www.epa.gov/manistique-river-aoc/restoring-manistique-river-aoc-timeline

https://www3.epa.gov/region5/cleanup/manistique/pdfs/manistique fs 199808.pdf

Other examples of EPA programs and Army Corps of Engineer publications from the mid

- EPA's Assessment and Remediation of Contaminated Sediments (ARCS)
 program—published several reports and guidance documents dealing with the assessment
 of contaminated sediments and various treatment technologies. EPA/905/R-94/003. Great
 Lakes National Program Office, U.S. Environmental Protection Agency, Chicago, IL.
 January 1994.
- USACE /EPA (U.S. Army Corps of Engineers and U.S. Environmental Protection Agency). 1992. Evaluating Environmental Effects of Dredged Material Management Alternatives - A Technical Framework. EPA842-B-92-008.
- EPA's Great Lakes National Program Office summarizes information on contaminated sediment sites in the Great Lakes Basin that have been remediated with a variety of techniques. https://www.epa.gov/aboutepa/about-great-lakes-national-program-office-glnpo

Specifically, with regard to the LPRSA of the Diamond Alkali Site, dredging was contemplated by the parties during discussions as one of the treatment alternatives to be evaluated as part of the Feasibility Study under the 1994 RI/FS AOC with Occidental. Occidental performed the RI under the AOC from 1994 until 2001. In 2001, determined that the RI needed to be expanded from 6 miles to 17 miles and work under the 1994 AOC was halted. As a result, Occidental did not reach the Feasibility Study stage of the 1994 AOC and did not evaluate alternatives for the contaminated sediments of the LPRSA at that time.

Although dredging as a remedial technology to address contaminated sediments was used and would have been considered for the LPRSA in the 1990's if work under the 1994 AOC with Occidental continued, we do, however, want to note that in the 2016 ROD for the Lower 8.3 miles, EPA selected capping as the remedy, but required dredging of a portion of the LPRSA to address flooding and to allow for the continued use of a federally authorized navigation channel in the 1.7 miles of the river closest to Newark Bay and to accommodate reasonably anticipated future recreational use above RM 1.7. Dredging, therefore, while a component of the 2016 remedy for the Lower 8.3 miles of the LPRSA, is necessary to address flooding and the federal navigation channel, but was not, in of itself, selected as a remedy to treat the contaminated sediments. EPA did evaluate dredging as remedial alternative 2 in the ROD, but it was not selected as the remedy for the Lower 8.3 miles.

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